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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/848,770	05/03/2001	Michael T. Loos	26625-704	6636

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EXAMINER

RUTTEN, JAMES D

ART UNIT	PAPER NUMBER
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2192

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/848,770	Applicant(s) LOOS ET AL.	
	Examiner J. Derek Rutten	Art Unit 2192	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 March 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 27-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 27-44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114 was filed in this application after appeal to the Board of Patent Appeals and Interferences, but prior to a decision on the appeal. Since this application is eligible for continued examination under 37 CFR 1.114 and the fee set forth in 37 CFR 1.17(e) has been timely paid, the appeal has been withdrawn pursuant to 37 CFR 1.114 and prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 3/27/07 has been entered, wherein claims 1-26 have been canceled and new claims 27-43 (renumbered 27-44) have been added.
2. Note that two versions of claim 42 were submitted. The second version, which depends from claim 34, has been renumbered as claim 44.
3. Claims 27-44 have been examined.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claim 38 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

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Claim 38 recites: "...the second set of classes includes a second set of relations different from the first." While the originally filed specification broadly describes "relations" (e.g. see page 16 lines 8-10 "relationships"), there does not appear to be any description of "a second set of relations different from the first." It is noted that Applicants have not specifically pointed out where new claim limitations are supported in the originally filed specification.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

7. Claims 34-37, 39-42, and 44 are rejected under 35 U.S.C. 102(e) as being anticipated by Carini.

In regard to claim 34, Carini discloses:

A method (see column 3 line 64 – column 4 line 14, e.g. “method”), comprising:
accessing a first mobile data model including a first set of classes which includes some but not all of an available set of classes included in an enterprise data store; See column 3 line 67 – column 4 line 5, e.g. “replication database that is a subset image of the enterprise database.”

instantiating the first mobile data model to create a first mobile data store; See Fig. 4, element 420, i.e. “replication database.”

creating a first mobile software application to interact with the first mobile data store; and See column 9 lines 48-50, e.g. “sales-related applications.” Note that creation of the application is inherent since without creation, the application would not exist.

making the first mobile software applications available to a customer. See column 9 lines 48-50, e.g. “devices ... may be programmed.”

In regard to claim 35, the above rejection of claim 34 is incorporated. Carini further discloses: *accessing a second mobile data including a second set of classes which includes some but not all of the available set of classes in the enterprise data store, the second set of classes different from the first; instantiating the second mobile data model to create a second mobile data store; creating a second mobile software application to interact with the second mobile data store, the second mobile software application different from the first; and making the second mobile software applications available to a second customer. See column 7 line 55 – column 8 line 10. Note that this passage*

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describes the use of multiple “snapshots” that can be combined into groups. Any snapshot that cannot be combined must therefore be different from the first. Also see column 8 lines 53-60.

In regard to claim 36, the above rejection of claim 35 is incorporated. Carini further discloses: *wherein the first set of classes is selected for the customer and the second set of classes is selected for the second customer.* See column 8 lines 57-60.

In regard to claim 37, the above rejection of claim 35 is incorporated. Carini further discloses: *wherein the first set of classes is selected for a first mobile device type and the second set of classes is selected for a second mobile device type.* See Fig. 4, elements 406, 408, 410, 412, 414, and 418.

In regard to claim 39, the above rejection of claim 35 is incorporated. Carini further discloses: *creating a first domain data store at a first server based on the first mobile data model.* See Fig. 5, element SMD1.

In regard to claim 40, the above rejection of claim 39 is incorporated. Carini further discloses: *synchronizing the first mobile data store with the first domain data store.* See Fig. 3, element S2.

In regard to claim 41, the above rejection of claim 39 is incorporated. Carini further discloses: *creating a second domain data store at the first server based on the second mobile data model.* See Fig. 5, element SMD2.

In regard to claim 42, the above rejection of claim 41 is incorporated. Carini further discloses: *synchronizing the first mobile data store with the first domain data*

store and synchronizing the second mobile data store with the second domain data store.

See column 6 lines 54-63.

In regard to claim 44, the above rejection of claim 34 is incorporated. Carini further discloses: *wherein a first customer receiving the first mobile software application is granted an ability to access and update data instances in the first mobile data store.*

See column 8 lines 18-25.

Claim Rejections - 35 USC § 103

8. Claims 27-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,636,873 to Carini et al. (hereinafter "Carini") in view of U.S. Patent 7,188,332 to Charisius et al. (hereinafter "Charisius").

In regard to claim 27, Carini discloses:

A system (see Fig. 4), comprising:

... a first mobile data model including a first set of classes See column 6 lines 43-46, e.g. "database schemas...may be stored on the replication database"

...the first set of classes including some but not all of an available set of classes in an enterprise data store ... See column 5 lines 25-30, e.g. "subset image of the enterprise database" and

[instructions] for deployment to a distributed computing platform and that allow the distributed computing platform to access information within a locally saved first mobile data store, the first mobile data store based on the first mobile data model.

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Carini teaches the use of a distributed computing platform of mobile devices that use a mobile data model to represent a subset of a database through a mobile data store. See Figs. 4 and 5, along with column 5 lines 25-30, and column 6 lines 43-46 as cited above.

Carini does not expressly disclose *a mobile data model generator configured to create a [data model] and an application development engine operable to generate instructions*. However, Charisius teaches a data model generator. See Figs. 2 and 13, column 3 lines 26-30, e.g. “generate a data model.” Note that Fig. 13 depicts a data model that includes a first set of classes. Also, Charisius teaches an application development engine. See column 6 lines 18-20, e.g. “representations of the source code 202 are generated from the language-neutral representation.” It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Charisius’ data model generator and application development engine along with Carini’s distributed database in order to reduce programming development time as suggested by Charisius (see column 3 lines 26-30).

In regard to claim 28, the above rejection of claim 27 is incorporated. Carini further discloses: *wherein the instructions include instructions to synchronize the first mobile data store with an updated portion of information from the enterprise data store*. See column 6 lines 26-30.

In regard to claim 29, the above rejection of claim 27 is incorporated. Carini further discloses: *the mobile data generator is configured to create a second mobile data model including a second set of classes, the second set of classes including some but not*

all of an available set of classes in the enterprise data store, the second set of classes different from the first; and... See column 3 lines 35-38.

the application development engine is operable to generate instructions that allow a second distributed computing platform to access information within a locally saved second mobile data store, the second mobile data store based on the second mobile data model. See column 6 lines 54-61. Note that the *application development engine* is taught by Charisius, but that the system of Carini provides “bidirectional” support that permits access by multiple platforms.

In regard to claim 30, the above rejection of claim 29 is incorporated. Carini further discloses: *wherein the first set of classes are selected for a first intended customer and the second set of classes are selected for a second intended customer.* See column 7 lines 55-59.

In regard to claim 31, the above rejection of claim 27 is incorporated. Charisius further teaches: *wherein the application development engine is configured to generate object oriented instructions.* See column 21 line 48 – column 22 line 11. Note that both C++ and the Java® programming language are object-oriented languages. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Charisius’ development engine with Carini’s distributed database for the reasons set forth in the above rejection of claim 27.

In regard to claim 32, the above rejection of claim 27 is incorporated. Carini further discloses: *further comprising an enterprise data model that includes the available set of classes.* See column 3 lines 12-14.

In regard to claim 33, the above rejection of claim 32 is incorporated. Charisius further discloses: *further comprising a graphical user interface (GUI) engine configured to provide a developer with an interface for the mobile data model generator to create the first mobile data model, wherein the interface allows a user to select an appropriate class from the enterprise data model for inclusion in the first mobile data model.* See Fig. 2 along with column 21 lines 58-65.

9. Claim 38 is rejected under 35 U.S.C. 103(a) as being unpatentable over Carini as applied to claim 35 above, and further in view of “Principles of Object Oriented Analysis and Design” by Martin (hereinafter “Martin”).

In regard to claim 38, the above rejection of claim 35 is incorporated. Carini further discloses: *the second set ... different from the first.* See column 7 line 55 – column 8 line 10. Note that this passage describes the use of multiple “snapshots” that can be combined into groups. Any snapshot that cannot be combined must therefore be different from the first. Also see column 8 lines 53-60. Carini does not expressly disclose: *wherein the first set of classes includes a first set of relations between classes, and the second set of classes includes a second set of relations* However, Martin teaches that data models provide relationships in object oriented models including data elements, data relationships, and data dependencies. See page 82: “Object types have relationships with other object types.” Also see page 87: “As described earlier, object types can have more specialized types called Subtypes and more general types called

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supertypes.” It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Martin's teaching of an object-oriented view of data with Carini's data model in order to enable faster application development and easier application maintenance (see Martin bottom of page 307).

10. Claim 43 is rejected under 35 U.S.C. 103(a) as being unpatentable over Carini as applied to claim 34 above, and further in view of U.S. Patent 6,195,796 to Porter (hereinafter “Porter”).

In regard to claim 43, the above rejection of claim 34 is incorporated. Carini further discloses: *wirelessly providing ... to a first mobile device*. See Fig. 5 and column 5 line 12. Carini does not expressly disclose wirelessly providing *the first mobile application*. However, Porter teaches the wireless provision of applications to computer devices. See column 4 lines 37-43. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Porter's wireless distribution of applications with Carini's mobile application in order to utilize a known distribution solution that provides convenience.

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to J. Derek Rutten whose telephone number is (571)272-3703. The examiner can normally be reached on M-F 7:00-3:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam can be reached on (571)272-3695. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

jdr



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SUPERVISORY PATENT EXAMINER